CLAIMS:

1. An image processing method comprising the steps of:

defining in a plurality of modes a local region containing a pixel of interest in an original image;

sequentially for said region in the plurality of modes, obtaining the variance of pixel values and deciding whether the value of said variance falls within a predetermined range; and

producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance first falls within said range.

2. The image processing method of claim 1, wherein said region is a one-dimensional region.

3. The image processing method of claim 1, wherein the upper limit of said range is the variance of noise of said original image.

4. The image processing method of claim 1, further comprising the step of:

producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance is smallest when none of the values of the variance for said region in the plurality of modes falls within said range.

5. An image processing apparatus comprising:

a region defining device for defining in a plurality of modes a local region containing a pixel of interest in an original image;

a variance calculating/deciding device for, sequentially for said region in the plurality of modes, obtaining the variance of pixel values and deciding whether the value of said variance falls within a predetermined range; and

an image producing device for producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the

region for which the value of said variance first falls within said range.

6. The image processing apparatus of claim 5, wherein said region is a one-dimensional region.

7. The image processing apparatus of claim 5, wherein the upper limit of said range is the variance of noise of said original image.

8. The image processing apparatus of claim 5, further comprising:

another image producing device for producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance is smallest when none of the values of the variance for said region in the plurality of modes falls within said range.

9. A recording medium which records in a computer-readable manner a program for a computer to perform the functions of:

defining in a plurality of modes a local region containing a pixel of interest in an original image;

sequentially for said region in the plurality of modes, obtaining the variance of pixel values and deciding whether the value of said variance falls within a predetermined range; and

producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance first falls within said range.

10. The recording medium of claim 9, wherein said region is a one-dimensional region.

11. The recording medium of claim 9, wherein the upper limit of said range is the variance of noise of said original image.

12. The recording medium of claim 9, wherein the medium records in a computer-readable manner a program for a computer to perform the function of:

producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance is smallest when none of the values of the variance for said region in the plurality of modes falls within said range.

13. An imaging apparatus comprising:

a signal collecting device for collecting a signal from an object;

an original image producing device for producing an original image based on said collected signal;

a region defining device for defining in a plurality of modes a local region containing a pixel of interest in said original image;

a variance calculating/deciding device for, sequentially for said region in the plurality of modes, obtaining the variance of pixel values and deciding whether the value of said variance falls within a predetermined range; and

an image producing device for producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance first falls within said range.

14. The imaging apparatus of claim 13, wherein said region is a one-dimensional region.

15. The imaging apparatus of claim 13, wherein the upper limit of said range is the variance of noise of said original image.

16. The imaging apparatus of claim 13, further comprising:

another image producing device for producing an image using as a new pixel value for said pixel of interest an average value of pixel values of the region for which the value of said variance is smallest when none of the values of the variance for said region in the plurality of modes falls within said range.

17. The imaging apparatus of claim 13, wherein said signal is a magnetic resonance signal.